

REMARKS/ARGUMENTS

Status of Claims

Claims 1 to 29 are currently pending in the application.

35 U.S.C. § 103 Rejections

The Examiner has stated that claims 1 to 8, 11 to 18 and 21 to 29 are unpatentable under 35 U.S.C. 103(a) over Alriksson *et al.* (U.S. Patent No. 6,977,938, hereinafter Alriksson) in view of Dolganow *et al.* (U.S. Patent Publication No. 2006/0123110, hereinafter Dolganow), McAllister *et al.* (U.S. Patent Publication No. 2001/0010681, hereinafter McAllister) and further in view of Iwata (U.S. Patent 6,108,708).

In rejecting claims under 35 U.S.C. § 103(a), the Examiner bears the initial burden of establishing a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). *See also In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984). It is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d, 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966), viz., (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the art. Additionally, in making a rejection under 35 U.S.C. § 103(a) on the basis of obviousness, the Examiner must provide some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the appellant. *See Oetiker*, 977 F.2d at 1445. *See also Piasecki*, 745 F.2d at 1472. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See Oetiker*, 977 F.2d at 1445; *Piasecki*, 745 F.2d at 1472.

Applicant's analysis below demonstrates that the Examiner has failed to fulfil the initial burden for a finding of obviousness under 35 U.S.C. 103.

Applicant submits that claims 1 to 8, 11 to 18 and 21 to 29 of the present application are patentable over Alriksson, Dolganow, McAllister and Iwata, as the Examiner has not properly determined the differences between the claimed invention and the prior art. Furthermore, the Examiner has not provided a valid explanation to support an obviousness rejection under 35 U.S.C. 103. Applicant's reasoning is detailed below.

Claim 1

Differences between the claimed invention and the prior art

The following is a discussion of how the cited references do not disclose all the elements of the rejected claim. While it may be considered that "the mere existence of differences between prior art and an invention does not establish the invention's non-obviousness", Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one skilled in the art (Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*, published in Federal Register Vol. 72, No. 195 October 10, 2007). As such, if elements from a claim are not disclosed by the combination of cited references and no valid reasoning is provided why the missing elements would be obvious, this may provide a strong basis for why a claim should not be rejected based on obviousness.

With regard to claim 1, the Examiner alleges that Alriksson discloses "a method of routing packets from a wireless communications terminal in column 3, lines 3-6, in which it is indicated by the Examiner that in "source routing" disclosed by Alriksson the route is chosen by the terminal.

The Examiner concedes that Alriksson does not disclose "receiving, via a respective wireless link from at least one of a plurality of wireless access nodes forming a network, network information relating to links between nodes". The Examiner alleges that Dolganow discloses this limitation in the form of a source routing protocol using available resource advertisements for identifying a path as disclosed in the abstract of Dolganow and paragraph [0033] of Dolganow, in which an example of resource information is disclosed as being available bandwidth.

The Examiner concedes that Alriksson does not disclose “selecting a route via the network for packets from the terminal in dependence upon the network information and supplying packets with information relating to the selected route”. The Examiner alleges that Dolganow discloses this limitation in the form of the source routing protocol using available resource advertisements for identifying a path as described in the abstract.

Also with regard to claim 1, the Examiner concedes that the combination of Alriksson and Dolganow does not disclose “selecting a route in dependence upon information dependent upon wireless communications between the terminal and a least one of the nodes”. However, it is alleged that McAllister discloses this limitation.

The Examiner alleges that the combination of Alriksson, Dolganow, McAllister fails to disclose selecting a route from a terminal. It is alleged that newly cited reference Iwata teaches source routing from a terminal based on the disclosure of FIG. 1, in particular elements 100 and 120, in Iwata and the corresponding description at column 1, lines 47 to 49 and column 3, lines 39 to 41.

Applicant will now briefly bring to the Examiner’s attention selected portions of the description of the present application that discuss the differences between nodes in a network performing source routing, in a manner analogous to Dolganow and McAllister, and the novel approach of a terminal performing routing of a packet at the terminal recited in the claims of the present application.

Applicant submits that Dolganow describes a system that is substantially the same as what is described at page 4, starting at line 8, of the present application, namely a network in which a network node performs routing of a packet through the network in which “last hop” wireless link conditions, that is the conditions of a wireless access link between the wireless terminal and the access node, are not considered in the routing selection. In the present claims it is a wireless link between the wireless communications terminal and the network that is used for receiving network information. Therefore, from the perspective of the claim as a whole, Applicant submits that it is particularly relevant that Dolganow does not disclose or pertain to a wireless terminal having functionality recited in claim 1. Therefore, Applicant submits that

Dolganow does not disclose “in the terminal: receiving, via a respective wireless link from at least one of a plurality of wireless access nodes forming a network, network information relating to links between the nodes”, as recited in claim 1. Applicant submits that as Dolganow does not disclose a wireless terminal receiving via a wireless link from at least one of a plurality of wireless access nodes forming the network information relating to other links, Dolganow at best teaches an access node receiving via a link from at least one of a plurality of other access nodes information relating to other links.

Applicant submits that McAllister is another example of a network in which a network node performs selection of a route, not a wireless terminal in communication with a node of the network, performing selection of a route, as recited in claim 1. Applicant submits that McAllister, in view of the disclosure at paragraph [0007] of McAllister (i.e. the use of link costs) is a particularly good example of what is described in the present invention on page 8, namely “known route selection processes take place in the nodes of the network, and link state messages are only exchanged between the nodes”. Clearly, there is no discussion in McAllister regarding using “information dependent upon wireless communications between the terminal and a least one of the nodes” (emphasis added), which includes last hop wireless link conditions between the wireless terminal and an access node of the network, in selecting a route for the packet.

Claim 1 recites that selecting a route is performed “from the terminal in dependence upon the network information and information dependent upon wireless communications between the terminal and a least one of the nodes” (emphasis added). Applicant submits that since the network information is recited as being received by the terminal and the information dependent upon wireless communications is not recited as being received at the terminal, the information dependent upon wireless communications is inherent to the terminal resulting from wireless communications with a one hop away network node. Furthermore, since the “information” is recited as information that is dependent upon wireless communications between the terminal and a least one of the nodes, Applicant submits that this is information based on a link between the terminal and at least one node. Since it is a wireless link, the link is range limited and does not necessarily include every link to every node in the network. The wireless communications between the terminal and a least one of the nodes are typically over a link between the terminal and a node a first hop away from the terminal, also considered to be “the last hop wireless link

between the terminal and the network”, page 9, lines 8-9 of the present application. Therefore, Applicant submits that the combination of Dolganow and McAllister fails to disclose selecting a route “from the terminal in dependence upon the network information and information dependent upon wireless communications between the terminal and a least one of the nodes”

For at least the reasons discussed above, Applicant respectfully submits that the combination of Alriksson, Dolganow, McAllister and Iwata does not teach all of the limitations recited in claim 1, as alleged by the Examiner. Furthermore, the Examiner has failed to explain why the missing features would be obvious to one skilled in the art. Without all the limitations of claim 1 being disclosed by the four references and no reason provided by the Examiner why these missing limitations would be obvious, it is not reasonable to expect that the combination of references would render claim 1 of the present invention obvious.

Reason to Combine

Once the scope of the prior art is ascertained, the content of the prior art must be properly combined. An obviousness inquiry requires review of a number of factors, including the background knowledge possessed by a person having ordinary skill in the art, to determine whether there was an apparent reason to combine the elements of the prior art in the fashion claimed by the present invention. For the Patent Office to combine references in support of an obviousness rejection, the Patent Office must identify a reason why a person of ordinary skill in the art would have combined the references *KSR Int’l v. Teleflex, Inc., No. 04-1350, slip op. at 14 (U.S., Apr. 30, 2007)*, Id. at 15. Even if the Patent Office is able to articulate and support a suggestion to combine the references, it is impermissible to pick and choose elements from the prior art while using the application as a template.

Applicant submits that the Examiner’s selection of Alriksson is based on hindsight selection solely for its disclosure of a wireless terminal. The Examiner concedes that Alriksson does not disclose any of the steps of the method performed by the wireless device in claim 1 of the present application. As Alriksson does not disclose the active method step limitations of claim 1, which are alleged to be disclosed by the other three references, it is improbable that one skilled in the art would consider such a reference in combination with Dolganow and McAllister, which do not disclose wireless terminal functionality.

In addition, Applicant submits that there is no suggestion of a desirability of the claimed invention in the references that would serve as a reason for one skilled in the art to combine the references. Applicant submits that the Examiner has failed to provide a suitable explanation of why one would combine the four cited references when the three references being relied upon for the majority of the steps of the method claim are unrelated to wireless communications.

The Examiner alleges that it would have been obvious to modify the system of Alriksson by “receiving, via a respective wireless link from at least one of a plurality of wireless access nodes forming a network, network information relating to links between nodes and selecting a route via the network for packets from the terminal in dependence upon the network information and supplying packets with information relating to the selected route” as allegedly disclosed by Dolganow. The Examiner alleges that such a modification “would benefit the system by ensuring the terminal chooses a route based on the current available bandwidth between the links”. Applicant submits that Dolganow discloses networks in which the switching nodes, not wireless terminals, receive information and select an appropriate route. Applicant submits that there is no provided reason why the network nodes selecting the route, which is what is disclosed in Dolganow, would be beneficial and advantageous over a communication terminal (the end user in Dolganow), and specifically a wireless communication terminal, selecting the route, which is what is recited in claim 1.

The Examiner alleges that it would have been obvious to modify the system of the combination of Alriksson and Dolganow by selecting a route in dependence upon information dependent upon communications between the terminal and at least one of the nodes as allegedly disclosed in McAllister. The Examiner alleges that such a modification “would benefit the system by ensuring that the chosen route is affordable to the user”. Applicant submits that Dolganow and McAllister both disclose networks in which the switching nodes, not wireless terminals, select an appropriate route. Applicant submits that there is no provided reason why the network nodes selecting the route, which is what is disclosed in Dolganow and McAllister, would be beneficial and advantageous over a communication terminal (the end user in Dolganow and McAllister), and specifically a wireless communication terminal, selecting the route, which is what is recited in claim 1.

On page 11 of the Office Action in the Response to Arguments section the Examiner indicates that the arguments previously submitted related to Dolganow failing to disclose particular elements, which are substantially reiterated above, are not persuasive. The Examiner alleges that Alriksson teaches source routing in a terminal and Dolganow teaches source routing. The Examiner alleges that Dolganow was being used to show a source receiving via a respective link from at least one of a plurality of access nodes forming a network was well known in the art at the time of the invention. Also on page 11 of the Office Action Examiner indicates that the arguments related to McAllister failing to disclose particular elements, which are substantially reiterated above, are not persuasive. The Examiner alleges that Alriksson teaches source routing in a terminal and McAllister teaches source routing. The Examiner alleges that McAllister was being used to show a source selecting a route in dependence upon information dependent upon communications between the source and at least one of the nodes was well known in the art at the time of the invention. Applicant maintains that while the elements indicated to be disclosed by the Examiner in the cited references may involve source routing, the difference of where the selection of the route is made and what information the selection is based upon is fundamentally different. Alriksson may be considered to disclose source routing in a terminal, but discloses none of the steps recited in claim 1. Dolganow and McAllister may be considered to disclose source routing in a network node, clearly not taking into consideration a last link between a wireless terminal and an access node.

Applicant respectfully submits that while Dolganow and McAllister may disclose source routing from a network node, neither reference suggests or discloses taking into consideration “information dependent upon wireless communications between the terminal and a least one of the nodes”. Despite the Examiner’s allegation that a network node can be considered a source/terminal, Applicant submits that it is inappropriate to equate the network nodes of Dolganow and McAllister with a wireless communication terminal, when the network nodes of Dolganow and McAllister clearly do not have the functionality of a wireless communications terminal capable of utilizing “information dependent upon wireless communications between the terminal and a least one of the nodes”, as recited in claim 1.

Applicant submits that since Dolganow and McAllister do not disclose a wireless terminal receiving network information and selecting a routing path for a packet based on

network information and information dependent upon wireless communications between the terminal and a least one of the nodes, but instead disclose a network node that does not consider information dependent upon wireless communications between the terminal and a least one of the nodes, each of Dolganow and McAllister teach away from a wireless terminal receiving network information and selecting a routing path for a packet based on network information and information dependent upon wireless communications between the terminal and a least one of the nodes. Applicant submits that this is a reason that one skilled in the art would not combine Dolganow and McAllister with Alriksson in the manner alleged by the Examiner.

In addition, as each of Dolganow and McAllister do not operate in the same manner as Alriksson, Applicant submits that the proposed modification of the references resulting from the combining of the references suggested by the Examiner would change the principle of operation of each of Dolganow and McAllister or Alriksson, as Dolganow and McAllister operates in a different manner than Alriksson. Applicant submits that this is another reason that one skilled in the art would not combine Dolganow, McAllister and Alriksson in the manner alleged by the Examiner.

Furthermore, the issue date of the Iwata patent is August 22, 2000. Both Dolganow and McAllister are directed to network nodes, which are not endpoints of the network, performing the source routing. These two references include network endpoints that are identified as “users” in McAllister and “Originating Parties” in Dolganow. Neither of these references contemplates the users and Originating Parties as performing source routing. The McAllister application was filed on March 22, 2001 and the Dolganow application is a continuation of an application that was filed on June 11, 2001. Both dates are subsequent to the issue date of Iwata. If it were obvious to one skilled in the art to combine the references, as alleged by the Examiner, then it would seem likely that the McAllister and Dolganow applications would have suggested the possibility of the users and Originating Parties, respectively, performing the source routing, as the applications both having filing dates subsequent to Iwata issue date. However, neither reference suggests such a possibility. This is another reason why Applicant submits that one skilled in the art would not combine the references in the manner alleged by the Examiner and arrive at the claimed invention.

Furthermore, as Iwata is directed to source routing occurring in a terminal as opposed to in access nodes of the network, Applicant submits that, for similar reason to Alriksson, one skilled in the art would not consider combining Iwata with Dolganow and McAllister.

For at least the reasons discussed above, Applicant submits that the Examiner has failed to provide a suitable reason for combining the cited references.

Applicant submits that the Examiner has failed to meet the initial burden of establishing a *prima facie* case of obviousness in view of limitations of claim 1 not being disclosed by the combination of references and failure to provide a suitable reason for combining the references. It is respectfully requested that the Examiner reconsider and withdraw the obviousness rejection to claim 1.

Claims 2 to 8, 11 to 18 and 21 to 29

Claims 14 and 24 are additional independent method claims that recite respective methods that are performed in the terminal. Claim 27 is an independent claim directed to a method of “routing packets from a wireless communication terminal via nodes of a network” wherein the steps are controlled by the wireless communication terminal. Claim 28 is an independent claim directed to a method of communication in a wireless access node of a network wherein the node receives packets including routing information selected by the wireless communication terminal. As claims 14, 24, 27 and 28 all pertain to a wireless terminal operating in a similar fashion to claim 1, Applicant submits that claims 14, 24, 27 and 28 patentably distinguish over Alriksson, Dolganow, McAllister and Iwata. It is respectfully requested that the Examiner reconsider and withdraw the obviousness rejection of claims 14, 24, 27 and 28.

Claims 2 to 8, 11 to 13, 21 and 22 are dependent, either directly or indirectly, on claim 1. Claims 15 to 18 and 23 are dependent, either directly or indirectly, on claim 14. Claims 25 and 26 are dependent, either directly or indirectly, on claim 24. Claim 29 is dependent on claim 28. For at least the reason of their dependence on claims 1, 14, 24 and 28, Applicant submits that dependent claims 2 to 8, 11 to 13, 15 to 18, 21 to 23, 25, 26 and 29 patentably distinguish over the combination of Alriksson, Dolganow, McAllister and Iwata. It is respectfully requested that the Examiner reconsider and withdraw the obviousness rejection of the identified dependent claims.

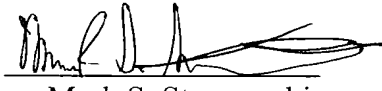
Claims 9, 10, 19 and 20

Claims 9, 10, 19 and 20 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Alriksson, Dolganow, McAllister and Iwata and in view of other references. Claims 9 and 10 depend indirectly on claim 1 and claims 19 and 20 depend directly on claim 14. In view of Applicants' submission regarding the 35 U.S.C. 103 rejection of claims 1 and 14, dependent claims 9, 10, 19 and 20 should also be patentable. In view of the above discussion, the Examiner is respectfully requested to withdraw the 35 U.S.C. 103 rejections of claims 9, 10, 19 and 20.

In view of the foregoing, Applicant respectfully requests the Final Office Action be withdrawn.

Respectfully submitted,

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